

### **AMENDMENTS TO THE CLAIMS**

Please replace all prior versions, and listings, of claims in the application with the following list of claims, in which insertions are indicated by underlining and deletions are indicated by strikeouts or double bracketing.

1-146. (Cancelled)

147. (New) A method for inducing a mucosal immune response, comprising  
mucosally administering to a subject an oligonucleotide 8 to 100 nucleotides in length  
and comprising 5' X1X2CGX3X4 3' wherein C is unmethylated and X1, X2, X3, and X4 are  
nucleotides, and an antigen that is not encoded in a nucleic acid vector, and  
systemically administering to the subject the antigen.

148. (New) The method of claim 147, wherein the oligonucleotide and antigen are  
administered mucosally as a priming dose, and the antigen is administered systemically as a  
boost dose.

149. (New) The method of claim 147, wherein the antigen is administered  
systemically as a priming dose, and the oligonucleotide and antigen are administered mucosally  
as a boost dose.

150. (New) The method of claim 147, wherein the antigen is administered  
systemically with a CpG oligonucleotide 8-100 nucleotides in length and comprising 5'  
X1X2CGX3X4 3', wherein C is unmethylated, wherein X1, X2, X3, and X4 are nucleotides.

151. (New) The method of claim 147, wherein the oligonucleotide and antigen are  
administered mucosally with a non-nucleic acid mucosal adjuvant.

152. (New) The method of claim 147, wherein the antigen is administered  
systemically with a non-nucleic acid mucosal adjuvant.

153. (New) The method of claim 150, wherein the antigen is administered systemically with a non-nucleic acid mucosal adjuvant.

154. (New) The method of claim 147, wherein the antigen is a polypeptide or a peptide.

155. (New) The method of claim 147, wherein mucosally administering is intranasally administering or administering by inhalation.

156. (New) The method of claim 154, wherein mucosally administering is intranasally administering or administering by inhalation.

157. (New) The method of claim 147, wherein systemically administering is intramuscularly administering.

158. (New) The method of claim 154, wherein systemically administering is intramuscularly administering.

159. (New) The method of claim 156, wherein systemically administering is intramuscularly administering.

160. (New) A method for inducing an immune response, comprising systemically administering to a subject, as a priming dose, an antigen that is not encoded in a nucleic acid vector, and mucosally administering to the subject, as a boost dose, an oligonucleotide 8-100 nucleotides in length and comprising 5' X1X2CGX3X4 3' wherein C is unmethylated and X1, X2, X3, and X4 are nucleotides, and the antigen.

161. (New) The method of claim 160, wherein the antigen is systemically administered with a CpG oligonucleotide 8-100 nucleotides in length and comprising 5' X1X2CGX3X4 3' wherein C is unmethylated and X1, X2, X3, and X4 are nucleotides.

162. (New) The method of claim 160, wherein the antigen is systemically administered with a non-nucleic acid mucosal adjuvant.

163. (New) The method of claim 161, wherein the antigen is systemically administered with a non-nucleic acid mucosal adjuvant.

164. (New) The method of claim 160, wherein the antigen is mucosally administered to the subject with a non-nucleic acid mucosal adjuvant.

165. (New) The method of claim 163, wherein the antigen is mucosally administered to the subject with a non-nucleic acid mucosal adjuvant.

166. (New) A method for inducing a mucosal immune response in a subject, comprising

mucosally administering to a subject, as a boost dose, an oligonucleotide 8-100 nucleotides in length and comprising 5' X1X2CGX3X4 3' wherein C is unmethylated and X1, X2, X3, and X4 are nucleotides, and an antigen that is not encoded by a nucleic acid vector, wherein the subject has received a priming dose of antigen administered systemically.